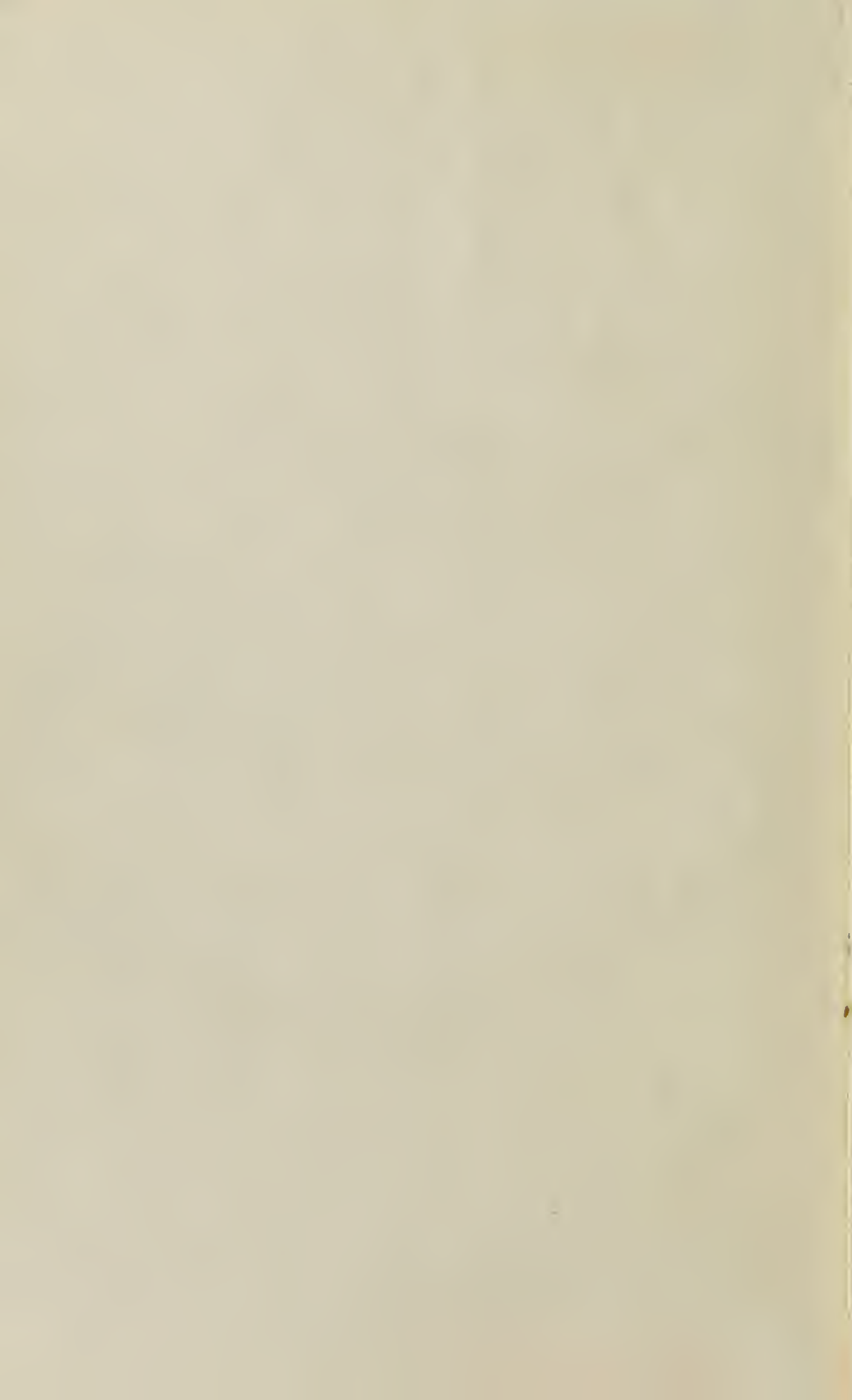


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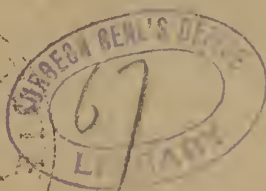


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Call with the
author's respects

PROFESSOR A. L. WARNER'S
INTRODUCTORY LECTURE.

PUBLISHED BY THE MEDICAL CLASS
OF THE
UNIVERSITY OF VIRGINIA.



CORRESPONDENCE.

University of Virginia, September 17th, 1834.

SIR:

At a meeting of the Medical Class of the University of Virginia, held on Tuesday the 16th inst., it was unanimously

“Resolved, That we heard with pleasure the able and highly appropriate INTRODUCTORY LECTURE, this day delivered by Doctor A. L. WARNER, and that a copy be requested for publication.”

The undersigned having been appointed a Committee in behalf of their fellow Students, to communicate to you the above Resolution, take pleasure in discharging that duty, and hope it will be entirely agreeable to you to comply with the request of your Class, in making which, they are actuated by motives which you will properly appreciate. Very respectfully, your obed't Servants,

J. R. WOODS,
R. H. GHOLSON,
R. W. LECOCK,
C. S. MILLS,
P. C. CALLAWAY,
J. F. CURTIS,
ARCH'D F. E. ~~X~~ ROBERTSON.

To DOCTOR A. L. WARNER.

University of Virginia, October 16th, 1834.

MESSRS. WOODS, GHOLSON, LECOCK, }
MILLS, CALLAWAY, CURTIS, } *Committee of the Anatomical and Surgical Class.*
ROBERTSON.

GENTLEMEN:

I must plead as an apology for permitting your note of September 17th to remain thus long unanswered, the severe illness under which I have been suffering for several weeks.

Your request in behalf of the Anatomical and Surgical Class for a copy of my Lecture, introductory to the course of instruction in Anatomy, Physiology and Surgery, shall be complied with, and a copy cheerfully placed at your disposal.

Yours, very respectfully,

AUGUSTUS L. WARNER.

AN
INTRODUCTORY LECTURE,
DELIVERED TO THE
MEDICAL CLASS
OF THE
UNIVERSITY OF VIRGINIA,
AT THE COMMENCEMENT OF THE COURSE ON
ANATOMY, PHYSIOLOGY AND SURGERY.

BY

AUGUSTUS L. WARNER, M. D.

PROFESSOR OF ANATOMY, PHYSIOLOGY AND SURGERY,
IN THE UNIVERSITY OF VIRGINIA.

PUBLISHED BY THE CLASS.

CHARLOTTESVILLE:

PRINTED BY MOSELEY & TOMPKINS.

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LECTURE.

Gentlemen,—The department which has been assigned to me, embraces three of the most interesting branches of human knowledge, and opens an extensive field for the operation of the most active and vigorous intellect.

It was said by the great painter of human character, that the highest employment of the energies of man, consisted in the investigation of himself: surely if such an occupation calls forth the exercise of the noblest faculties, and develops the richest enjoyment, the department to which we shall invite your attention offers you inexhaustible and rich treasures.

It is unnecessary for me on this occasion to retrace the history of the healing art, and point out the crude dogmas and glaring absurdities which marked its infancy, for the purpose of showing that they originated entirely in ignorance of this department. Suffice it to say, its sloth-like march must in a great degree be attributed to ignorance of the human organism, its healthy condition, and the laws which influence it in its physiological state; and it only assumed a philosophical condition when the scalpel of the anatomist had defined the various textures, and the physiologist had unravelled in some degree the apparently confused, yet connected thread of nature's operations. So long as medicine rested upon the vague speculations of an ardent mind, its precepts were futile dogmas, and its uncertain practical results served only as exemplification of the frail and perishable nature of the living organism; but the introduction of anatomical investigations withdrew the attention of her votaries from abstract and subtle reasoning to the contemplation of an organism composed of an assemblage of organs, playing in harmonious and beautiful accord.

Who amongst you, would recognize the originator of practical anatomy in the denounced and proscribed Grecian; driven by the severity of the law from the society of his fellows, and compelled to seek a secluded spot, where solitude might ward off the shafts of persecution? It is recorded that Democritus, stimulated by a desire to ascertain the source and course of the bile, instituted a dissection of the liver, and thus gave birth six hundred years previous to the Christian era, to a department which at present exercises an important influence upon the happiness and welfare of man. Thus we perceive this branch of science issued from the hermitage of the philosopher,

conflicted with popular prejudice, opposed the entail superstition of centuries, and eventually dispelled the absurd and irrational reverence for the mortal and destructible frame.

The establishment of the Alexandrian School in Egypt, under the fostering and protecting countenance of the Ptolemies, extended the labors and researches of the earlier anatomists, and under royal patronage our science broke down the barriers to its progress, and liberated the mind from that ignoble bondage with which prejudice and passion had so sorely fettered it. The rich acquisitions which anatomical science received from the labors of the Alexandrian professors, will be apparent to the most casual and superficial inquirer, and will increase his regret that the blind and ill-advised persecutions of Justinian should have driven the Greek philosophers from their native soil to a refuge in the Mahometan states. The removal of medicine into Arabia did not however contribute to its advancement, for permitted to linger without the fostering care of its zealous devotees, medicine relapsed and again fell into the hands of the priesthood, and became the gloomy occupant of the unhallowed cloister; and to fix its degradation, dishonesty and superstition rivited upon it the chains of astrology and necromancy. Medicine was revived in Europe during the thirteenth century by the Crusaders who brought it from Sicily on their return from the Holy Land, and it was immediately introduced into all the Universities. At this period Mundinus, a native of Milan in Italy, attracted attention to the department of anatomy, and is justly entitled to the merit of reviving a public interest in its advancement. On its revival, anatomy had reached an eventful era; not only countenanced and cultivated by the laborious investigators of medical science, it received the attention of the most eminent and distinguished artists, and became an auxiliary to the arts. Raphael, Titian and Leonardo de Vinci, whose pencils had already fired the European public with a thirst for the arts, divested our science of its repulsive features, and threw around it the embellishments of the fine arts, and thus contributed in part to redeem it from its dispirited condition. From this period we follow our science through a prosperous career, under the guardian care of assiduous and zealous devotees. During the sixteenth century, Vesalius injected colored fluid into the vessels for the purpose of facilitating minute dissections, and Frabricius-ab-Aquapendente, the preceptor of Harvey, discovered the valves of the veins. In 1628 Harvey announced the discovery of the circulation: this brilliant discovery was hailed as the harbinger of a new and powerful light, which would speedily diffuse its vivifying rays through the dark and benighted regions of ancient empiricism; but instead of reforming and establishing medicine upon a solid foundation it was the substructure of

the most baseless and vague theory which had ever agitated the world: upon it, arose the mechanical philosophy, which, like the doctrine of atoms "explained all the phenomena of nature and the operations of corporeal things upon the principles of mechanics; viz: "by the motion, gravity, figure, arrangement, disposition, greatness or smallness of the parts which compose natural bodies." Previous to the discovery of the circulation, Aselli traced out the lacteal vessels, and soon after Rudbec and Børtholin the general lymphatic system. In the seventeenth century Malphigi, Ruysch, Nuck and Luenhoech contributed greatly to the advance of anatomy by microscophical investigations; while Haller illustrated and adorned it by physiological investigations. During the 18th century, Morgagni, the pupil of Valsalva, devoted his attention to pathological anatomy. The extensive relations of anatomy, and its influence upon the comfort and safety of man, attracted to it the attention of the learned and enterprising of every nation; accordingly, it was not long confined to its nursery in Greece, but extended over Europe, and finally found industrious cultivators in our own land. Transplanted from its native soil, it suffered no deterioration; but exotic-like by constant and assiduous care, flourished in a more luxuriant condition; and it is a source of gratification that in this our favored land of liberty and peace, it has found an hospitable asylum from the storms of public passion. Sustained and countenanced by the intelligent and liberal, American anatomy maintains a proud rank among the sciences. Less than a century since Shippen, under the guardian care of Fothergill introduced into the then colony anatomical demonstrations; the novelty of the enterprize commanded the patronage of the liberal colonists, but in the hour when the hopes of its friends were most sanguine, the war which disturbed the domestic peace of our fathers, extended its paralyzing influence over the infancy of American anatomy; but the instrument which for a time retarded its progress was destined to display its beneficent intents. During the revolutionary struggle in which the lives of our valuable citizens were jeopardized, anatomy was seen in the midst of the conflict, cheering and sustaining the warrior, or bending with anxious care at the bed-side of the wounded and departing soldier.

We have thus far, in a hurried and imperfect manner presented you some of the most important eras in the history of anatomy, and you readily perceive that it has encountered the most violent opposition, and had in its infancy well nigh sunk under the blighting influence of popular prejudice and legislative indifference; but it now comes forth as one of the precise sciences; extending its influence through all the departments of medical literature, and insinuating itself along the circuitous and meandering path of the naturalist. The time has been,

when anatomy was but the adjuvant to medicine; but that day has gone, and with it the deceptive dreams of empiricism and speculation, and anatomy is now the corner stone and foundation of the temple of medical science, and it can only stand secure when resting upon this adamantine base.

Anatomy, the ground work of the whole fabric of medicine, is the science of organization: it investigates the arrangement of the molecules which enter into the formation of the tissues; the vital, physical and chemical properties of the textures which compose the several organs; the composition, contour, size, relation and functions of these organs, and finally the morbid alterations to which they are exposed. Can there be a department of science more worthy the entire devotion of the human intellect than that which unfolds to man the mysteries of his own existence? Independent of its relation to medicine it is one of the most interesting departments of natural science;—affording man a nearer and more scrutinizing review of the creative hand, and unfolding the most admirable adaptation of organs and systems to the wants, necessities and comforts of the animal.

The study of Anatomy may be divided into phytotomy, which investigates the anatomical peculiarities of the vegetable world, and zootomy or animal anatomy, in its most extended acceptation, embracing all the different classes of the animal kingdom.

Phytotomy presents the practical anatomist with but little useful information; by it however he is enabled to trace out the juxta-position of particles in the production of the several textures entering into the formation of the vegetable;—the arrangement of these textures in the development of the cellules, which perform an important part in the elaboration or assimilation of the absorbed fluid to the structure itself;—the construction of the radices with their spongipeds, destined to select the nutritive fluid from the surrounding soil; the distribution and ultimate ramification of vessels carrying this fluid throughout the structure of the plant, to be ramified minutely upon the leaves, for the purpose of undergoing certain changes by exposure to the atmosphere; and lastly the processes of fructification and fecundation. By this system of investigation he is permitted to decypher a chain of phenomena in the simplest form of living bodies analogous to that which is more perfect and extended in the animal kingdom.

Zootomy or animal anatomy, embraces the most enlarged and expanded view of the animal structure: it is termed comparative anatomy, when the structure of the different species of animals are examined in contrast; and when from the reunion and comparison of these facts, are deduced certain general laws of organization, it is styled Transcendental or Philosophical Anatomy. When the examination is confined to one species, it is special anatomy;—physiological,

when it relates to the healthy condition of the organs;—pathological when it investigates the morbid changes to which the several organs and textures are liable. Physiological anatomy may be subdivided into descriptive and general;—descriptive anatomy is employed with the external conformation of organs, it points out their number, their anatomical nomenclature, their situation, their direction, their volume, their weights, their color, their consistence, their figure, their regions, their relations, confining itself always to the external surface. General anatomy, on the contrary, penetrates into the interior of these organs, insulates each particle, examines it separately, analyses its chemical properties, estimates its vital and physical attributes, and finally develops the mode by which this superposition of particles completes and forms the entire organ. We might add to these divisions, another of more recent date, and cultivated successfully, only in the present day—the anatomy of the Fœtus, or the anatomy of Evolution, having for its object an examination into the developement, successive modifications and different metamorphoses of the fœtus, from the first period of its developement to the completion of its fœtal existence. Thus while general anatomy enables us to scrutinize the ultimate particles or molecules, which by combination in different proportions fabricates the entire organ; it also furnishes the means by which we may extend our investigations to the physiological law, under which, these particles are enabled to arrange themselves in the developement and growth of the several organs. The introduction of this division of anatomy opened an entirely new field of enterprise, and was pregnant with important results:—it gave to our science a propulsive movement which will be recognized to the latest posterity. Demonstrative anatomy was no longer the only object of attention with the anatomist, or rendered him solely subservient to the surgeon; it gave birth to a new era in medicine, and established a philosophical and rational system, which was justly termed physiological.

Pathological followed in the train of general anatomy, and claimed the attention of the most distinguished and laborious investigators in the field of medicine. The popular prejudice to post mortem examinations retarded its rapid advancement, although it promised to develop the most unexampled and important benefits to suffering humanity, and a period of considerable duration elapsed before it assumed for itself a high and pre-eminent location. It now invites the physician, in company with the anatomist, to enter and draw from its unerring principles, a full and ample exposition of those morbid alterations of structure which constitute the great outlets of life:—it assures him that here alone, he can obtain faultless and undeviating principles of practice, and proffers to him a certain guide through the multiform and protean-like race of diseases that fill up the mea-

sure of human ills: it extends to him the hand of fellowship, and promises to guide him with tranquil mind through the arduous and painful duties of a practical life, and lead him unscathed through the whirlwind of irrational prejudice and ignoble opposition.

But, gentlemen—although these several branches of anatomy furnish us interesting and important subjects of study, yet the objects of our especial attention are embraced under the department which we shall term human anatomy; having for its purpose the minute and particular investigation of man, in his primitive or original state, and progressive developement; comprehending the mode of formation, the subsequent or gradual increase or growth of the several organs comprising his frame;—the contour, volume, relation, and dependence of these organs;—the laws which regulate his developement and sustain his existence; and lastly, the alterations to which his several organs are exposed by the operation of those morbid laws which arise from the influence of hurtful agents, constantly impinging upon them.

To the anatomist, man truly appears “fearfully and wonderfully formed:” the uniformity of design, as displayed in the admirable adaptation of his several parts; the symmetry of his frame; the complication of his structure, yet the perfect harmony in its action; the perishable, and apparently frail materials of his organization, yet the wonderful resistance afforded to the attacks of deleterious and injurious agents from without; the regularity in the successive developement and perfecting of his stature, and above all, the majesty of his mental energies, compel him to exclaim, it is the handy work of an infinite intelligence, bountiful in its provisions, rich in design, magnificent in resources, and omnipotent in creative skill. His frame work, fashioned of the most substantial materials, determines his form; and constitutes, in one instance, a protection for important and delicate organs; at another, levers for the purpose of motion: his apparatus for motion is adapted to the production of symmetry: his nervous system establishes a relation between him and the external world, and furnishes, at one period, intelligence of the presence of hurtful agents, and conveys the power of relief:—at another, overruling and directing the functions of nutrition;—removing deleterious and depositing in their stead healthful particles: at another, constituting the empire and throne of reason, judging of rights, estimating the delicate relation of its own material system to its God; bursting forth in strains of eloquence and poesy, or bending in wailing over the bier of friendship. Superadded to this structure (for his more perfect enjoyment) are organs of sense. The eye, the most perfect optical instrument, by its form and muscular appendices, enables him to take cognizance of objects in every direction, and embraces, as it were in one glance, a

thousand images. It is called from the rugged and romantic cliff to the meandering and gurgling rivulet: from the lofty and cheerless mountain, to the verdant plain from the rudeness of nature, to the beauties of art from the furious ravings of the madman, to the placid expression of infant innocence; thus enabling him in the shortest space of time, to change entirely the sphere of his operations, or to seek in a multitude of locations, materials for gratification.

The ear, the most signal display of creative power, embracing in a minute space, extent of surface, and the most exquisite arrangement; complicated almost beyond the power of description, is the medium of many of our most distinguished pleasures. Through it, the softened strains of the tabor excite the feelings; without it, the thrills of impassioned eloquence, and the fervid expression of affection, would fail to address the sympathies of nature: the world studded and diversified by a thousand objects of endearment, would lose its interest, and the sources of our enjoyment would be essentially curtailed.

The sense of smell, of all, the most singular, contributes no little to our enjoyment, by announcing the presence of delightful and refreshing odours, or warning us of the proximity of loathsomeness and disease. The apparatus for taste, unites in the production of our comfort, by enlarging the means of discriminating between grateful and nutritious, or distasteful and noxious articles: but these sources of pleasure appear far more interesting, when we contemplate them as means of protection. The gathering storm and raging tempest is anticipated ere its near approach; the dangerous precipice and deep abyss is recognised by the wanderer before his unwary step is on the brink, and the noxious fumes of the poisoned valley announce to the inquisitive traveller his proximity to the vale of death. Thus we are forced to perceive that comfort and convenience is inseparably united with utility in the animal organism.

Interesting and valuable as anatomy may appear, the department of physiology (which is embraced in our course of instruction) is no less inviting; it examines the phenomena which result from the healthy operation of the different organs of the animal body, defines their healthy and sound state, and contemplates man in the successive stages of his existence—in uterine life, infancy adolescence, manhood and old age. By the aid of this department, we are enabled to trace up the striking analogy existing between the several stages of vegetable growth, and the corresponding periods in animal development; and although the mode and time required in the accomplishment of these ends vary, yet the laws which influence them, present apparent similarity. The animal derives its origin from a being similar in organization to itself; when perfectly developed, not only the number of its organs corresponds with those of the parent, but even

their intimate organization, giving rise to proclivities to disease. The general contour and conformation of the body, the gait and general carriage, indicate its origin, and not unfrequently the expression of the countenance, and even the cast of mind is so prominently analogous, that maternal fondness traces in her offspring the softened lineaments of herself, or one still dearer to her. A similar condition of things is seen in the vegetable world: we put a seed into the earth, assured that its product will present us the characters of the plant from which it has been taken;—its tender sprout is strictly analogous to the early life of the parent stock; it vegetates under the same law; observes the same form; yields a similar fruit, and its declension maintains the same character. Another point of resemblance is seen in the growth and developement;—all living bodies, however different or complicated their structure, are submitted to a similar process; none are thrown into being perfect, but all attain perfection by gradual and successive stages; the mighty oak which heeds not the fury of the tempest, and resists the accumulated violence of the whirlwind, has passed through the tender period of germination; in short, all the prominent physiological laws are distinctly recognized in every class of organised beings; in the simple and limited operations of the vegetable, and the imperfect and partial developement of the zoophyte, as in the more perfect and complicated movements of the human frame. Human physiology opens to our view a complete and perfect picture of man from the earliest embryo state, to the ultimate termination of life, and therefore embraces two distinct periods,—the one previous to birth, the other subsequent to that event. During the dependent existence, the distinguishing peculiarity consists in the relation which the maternal system bears to its physiology. In every stage of animal life, it is essential that a constant and uniform supply of arterial blood should be furnished for its nutrition; during utero gestation, while an intimate relation is sustained between the *fœtus* and mother, this supply of arterial blood is furnished by an organ (the placenta) which owes its energy to the maternal system, the pulmonary apparatus, the great nurse of life, when the animal is thrown upon its own efforts, being now inactive and paralyzed. The embryo, in all the higher classes of animals, preserves this intimate relation to, and is nourished by the maternal system. If misfortune attends her, if disease assails her, if care robs her of the bloom of health, or death overwhelms her, the *fœtus* being entirely dependent upon her, and incompetent to the supply of the pabulum of life must of necessity perish. Arterial blood being furnished fit for the offices of life, the process of assimilation is unnecessary and consequently a number of organs are inactive; but when the animal is cast upon its own resources, and commences its independent and separate life, this supply is no

longer furnished, and the animal is compelled to elaborate from the various agents which surround him, a nutritive fluid; and thus a requisition is made upon the digestive organs, and the pulmonary apparatus is invoked to eliminate from the blood the noxious and deleterious particles. Thus an entire and complicated apparatus, which, in the fœtus, seemed to be superfluous, is now called into active exertion and engaged in producing the functions of digestion, assimilation, respiration, circulation, secretion, and exhalation. The investigation of the organs, which are engaged in the production of these functions, and their mode of action, together with the analysis and use of the secretions, which result, is the province of physiology.

In our examinations as physiologists, we will discover that the animal frame is constantly undergoing changes, and presents us various and dissimilar stages, furnishing us different physiological states; thus man, in his whole career, from his original developement, to the termination of life, is offering to the physiologist a new field of investigation. In fœtal life, we find him sustaining his being by a feeble tenure; dependent upon a creature almost as frail as himself; a thousand casualties unlooked for may assail the fountain of his nourishment;—physical infirmity or mental excitement may sever the tender cord that maintains this relation. Ill adapted at this period, to the vicissitudes of life, if violently separated he must necessarily die. But even when thrown upon his own resources, his enfeebled frame is but ill fitted to the boisterous storm; tossed and agitated by cares which maternal solicitude and tenderness could not ward off, he passes unconsciously from infancy to boyhood. The traces of infancy are now almost extinguished; the long bones have lost their curvature; inactivity has given place to sprightliness; rotundity of frame is yielding to leanness; the mind, active and versatile, is no longer arrested for a season, by any one object; the world, wide spread as it is, can scarcely furnish sufficient objects for his gratification; peevishness and fretfulness have given place to suavity and mildness. Puberty follows, and is equally distinguished by peculiar features. The voice, once as the mellow strains of the lute, is harsh, hoarse and rude; the protuberances upon the bones become apparent; the bony cavities about the head are forming; the sexual organs are developed; irritability and petulancy render this the season of greatest discontentment.

This period of deformity (for such it resembles) ushers in manhood with all its vigor. The frame being perfected, is characterized by symmetry; the head is developed; the thorax is expanded; the limbs are gracefully formed; the countenance betrays the inward movings of the soul; the gait is lofty and commanding; dignity of manners displaces peurile imbecility. The mind is elevated in the sources of

its enjoyment; passion is now tempered by reason, and the individual assumes a responsible and interesting relation to his fellows. Such is man when the period of growth or maturity is completed.

It is not to be expected that this state of perfection and symmetry should endure unchanged for a long period; for, like all living bodies, man suffers constant transitions. Decay, dating its commencement from this hour, gradually progresses: his graceful nut-brown locks are whitening with his years; the bloom of health is giving way to a wrinkled brow and care-worn countenance; the well proportioned trunk is sadly deformed by the accumulation of adeps about the abdominal organs. Decay moves onward; until finally, the whole frame announces the sad ravages of time. The appetite is precarious; nutrition is imperfect; the frame is wasting and becoming attenuated; the step is tottering and slow; the eye is losing its brilliancy and power; the ear is obtunded; the teeth are dropping from their sockets; the disposition is fretful; the mind has lost the power of comparison; the memory is defective, and the judgment is impaired: in short, old age, with all its infirmities, has arrived. Like a majestic edifice in ruins, he commands the respect and veneration of the multitude. The heart continues to circulate the vital fluid, more and more feebly; assimilation is nearly suspended; the voice becomes inaudible, and the extremely attenuated and enfeebled frame, no longer capable of sustaining the vicissitudes of life, gladly sinks into its last repose.

Such a gradual and protracted completion of life is the lot of but few; disease commanding so many avenues to the fountain of life, attends him from the reckless slumber of infancy, through the successive stages of his existence, and thus, at every moment, he is exposed to its assaults: but by the successful cultivation of your profession, its malign influence may be arrested, and its march signally retarded.

Having examined minutely the several organs which enter into the composition of the human frame, and carefully noted their operation in health, with the result, the physiologist is permitted to extend his researches into a new channel, and to seek out the influence which this arrangement of organs exerts in the production of that great distinguishing characteristic of his species—a high and comprehensive intelligence. Here is opened a new field of action, comprehending some of the most interesting questions which could be presented to the moralist or physiologist. He may employ himself in examining the influence of this adaptation or arrangement of organs in the development of mind, or estimate their modifying tendency on a pre-existing essence of divine origin. The student may find ample recreation in turning from the study of the brain-structure, to a review of the ingenious and interesting accumulation of facts and inferences, by the distinguished German physiologists, Gall and Spurzheim; and al-

though he may be much disposed to doubt the accuracy of their system of mapping or localization of organs; yet he cannot but admit that many of their deductions are established by facts and observations, and that the system has its foundation in an incontrovertible position, viz. the brain modifies the condition of the mind; its perfect development and healthy action being essentially necessary to a sound and vigorous state of the intellect.

We now invite your attention to the third branch of study, connected with this school. Surgery is the application of anatomy and physiology to the wants and necessities of man.

Physiology, by defining the healthy condition of our organs, enables us to distinguish readily their morbid alterations; while anatomy promptly indicates how far the remedial exertion may proceed with safety; thus, then, the department of surgery is the application of anatomical and physiological principles to the relief of disease. This department has been correctly styled the chivalry of our science; its practical cultivation calls forth the exercise of unshaken firmness, a well regulated and discriminating mind, and, above all, a deep-rooted and thorough acquaintance with the human frame.

To the young physician no department of medicine offers so great a field for distinction; for as the maladies which fall under the hands of the surgeon are most appalling and painful and appreciable by the senses, so is their removal speedy and tangible by the vulgar eye. The immediate relief, the attendant suffering, the bloodshed, the anxiety of surrounding friends, elevate the surgeon to a commanding station in the affections and regard of the populace. On the contrary, while the practitioner of medicine is bending unobserved, with anxious mind and wearied body by the bed of sickness, carefully observing each trivial alteration in the condition of his patient, and by his toilsome days and sleepless nights conducts the sufferer through an afflictive and protracted illness to health and vigor, the surgeon by one bold stroke of the knife gains for himself renown and distinction; not for his acute observation or discriminating judgement; but merely by the fact that his operations are seen and subject to the scrutiny of the bystander. Think not, that I would contend that the practice of surgery calls not for the energies of the mind or requires not a calm, deliberate and investigating intellect; on the contrary, its domains spread out and ramify through a large class of the ills incident to humanity, and not unfrequently it demands the most cautious, connected and untiring effort of ratiocination.

The benefits resulting from the department of surgery, and its influence over the comfort and welfare of man is recognized in the efficient and immediate relief which it affords to suffering humanity under many of those afflictive casualties to which it is constantly ex-

posed. While it bears healing to the patient, it carries consolation and gladness to the distracted and mourning relatives; for when by an unforeseen accident the system is rudely assailed, and gives evidence by the debility which pervades it, that an important and essential organ is oppressed and death seems lingering nigh;—when the pallid countenance, dilated pupil, and glassy eye indicate a rapid approach to the vale of gloom;—and the hurried and stertorous respiration, the flagging and oppressed pulse announce an immediate dissolution; the phrenzied and distressed relatives adding to the scene a deeper interest and a melancholy gloom; then the surgeon with god-like power, holding in his hands the fate of the sufferer “is hailed by the disconsolate friends as a ministering angel bearing healing in his wings,” illumining the recently saddened and phrenzied mind, and gladdening the distressed and care-oppressed heart.

But the resources of our art are seen more distinctly when applied to those malformations or congenital imperfections which are sometimes presented to the care of the surgeon.—Congenital blindness and deafness stand prominent in the list of human infirmities, depriving the individual of many of the greatest luxuries and advantages of life; for to him, whose organ of hearing is defective, the sound of the tabor and the lute brings no thrilling emotion; the warblings of the feathered songster fall unheard upon the ear; the accents of maternal greeting effect no impression upon his heart; he lives under the heart-rending conviction that he is surrounded by every source of earthly happiness, but is not permitted to participate. He whose heart has never been gladdened by the light of Heaven knows that the world in which he moves is diversified and studded with objects of gratification and happiness; but for him, the irrevocable decree has gone forth “to thee, the sun will shine in vain; in vain to thee, the field is decked with verdure.” Such indeed would be the hard fate of these unfortunates, but the surgeon by a skillful and well-directed exercise of his art relieves the organ of hearing; removes the obstructions to the rays of light, and thereby opening these avenues to the brain, a thousand new and delightful impressions are made upon the heart:—The thrilling and joyous sounds of animated nature, furnish a rich and sumptuous banquet for the soul; but superadded are the strains of affection and maternal greeting, establishing new sympathies, and multiplying his connections with the material world. When sight is restored, a closer tie binds him to surrounding objects, each of which is then recognized as exerting an influence in the production of his happiness:—every being beside him is contributing something to his nourishment or comfort: in short, he then perceives he is but one link in the connected chain of animated nature, deriving advantages from, and reflecting similar benefits upon the surrounding world. These are

some of the objects of the department of surgery, and if the alleviation of human misery is worthy the employment of the talents and energies of the learned, this branch of study offers you an ample and convenient opportunity of uniting the sympathies of your hearts with the exercise of your intellects and talents.

It has been said that the untiring and persevering exertions of the anatomists and physiologists of the present age have contributed but little to the advancement of medicine; but I must guard you against such an opinion; for the present aspect of our science clearly demonstrates that the last twenty years have completely and entirely revolutionized medical science; dispelled forever the gross dogmas of antiquity; and reared in their stead, a beautiful and symmetrical structure, having for its base correct anatomical and physiological principles.—To sustain this assertion, it is only necessary to contend that the human mind in every department of knowledge has been active;—the face of nature indicates it. The verdant and fruitful meadow; the overflowing garner; the smile of hilarity and comfort which encircles the laborer's fireside; an active and vigorous commercial intercourse; the perfected condition of the arts; the establishment of equal laws; the liberation of the mind from religious oppression, point us at once to the progressive and steady improvement in human affairs, and is medical science alone lingering sickly and sadly by Leyden's once favored but now tottering walls, or wandering demurely, and silently through Salernum's wild and deserted groves? Away with such an imputation against our profession, generated in ignorance and fostered by folly. The present improved condition of our science clearly evinces the important influence exercised by the advancement of anatomy and physiology, and proffers to the industrious medical inquirer, a system justly entitled to a place among the precise sciences. Think not however, that in presenting these departments before you in an advantageous light, that I would in any degree disparage the claims of the other branches of medicine; far from it; their claims will be urged upon you more ably and efficiently than I should be able to do; but permit me to say there is no one department of medicine that will not call forth your constant and untiring efforts.

But is there one before me, intimidated by the tedium and toil which the cultivation of anatomy necessarily involves? If so, let him contrast the anxiety and labor with the gratification resulting from scanning the works of nature. Not circumscribed by one division of created objects, the anatomist wanders into the field of nature, and whether we find him straying with Flora along the sunny beath and "sipping sweets from every flower," or reclining under the oak's deep shade, or clambering the rocky mountain's side, or basking upon the sea-lashed shore, he is still the practical anatomist, contemplating the

various causes and agents which modify the habits and condition of man. Let him reflect that the boundaries of this science are not yet defined; that its extensive range is as broad as the face of nature, and he must then admit that the ample field which is provided for the exercise of his talents, offers an irresistible invitation to enter and labor zealously.

By cultivating these departments, you must necessarily add to your professional influence and respectability;—they are the instruments which elevate the intelligent physician above his fellow, and establish the bold line of demarcation between worth and ignorance. They will lessen the labor of your closet, and lighten the gloomy and dreary hours of study, and will not fail to counsel you at the bed of sickness; they will inspire an enthusiastic admiration of the works of nature, and steel your bosom against that deadly scepticism which desolates the heart, and perverts the richest blessings of a fleeting life. If they are then so worthy of consideration, at what period can they be most successfully cultivated? Shall it be, when convulsed by the bustle and turmoil of practical life? or when time is wrinkling your brows, snatching from you your intellectual vigor and freshness, and hurrying you onward to the childhood of old age? or, when in the luxuriance of adolescence, your minds receive with facility the impress of truth, and preserve its indelible trace?

The hour for improvement is now. Your profession calls upon you in loud and impressive tones, to avail yourselves of every opportunity to store up knowledge; the great end of which, is professional skill—personal worth, and public benefit.

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